



UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION

Jalan Colombo Nomor 1 Yogyakarta 55281

Telepon: (0274) 565411 Pesawat 217, (0274) 565411 (TU); Fax. (0274) 548203

Laman: fmipa.uny.ac.id, E-mail: humas_fmipa@uny.ac.id

Bachelor of Education in Mathematics

MODULE HANDBOOK

Module name:	Discrete Mathematics
Module level,if applicable:	Undergraduate
Code:	MAT6317
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	5 th
Module coordinator:	Muh. Fauzan, M.Sc.St.
Lecturer(s):	Sahid, M.Sc.; Muh. Fauzan, M.Sc.St.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory course
Teaching format / class hoursperweekduring the semester:	150 minutes lectures and 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self study per week for 16 weeks.
Creditpoints:	3
Prerequisites course(s):	Linear Algebra (MAT6301)
Course outcomes:	After taking this course the students have ability to: CO1. Respecting other people's views, opinions,and original ideas. CO2. Understand the concepts about mathematical logic and principles in enumeration, combinatorics, generator functions, recurrence relations and graph theory modeling CO3. Solve the recurrence relation problem CO4. Apply generator function to solve the general problems.

Content:	This course discusses about the concepts of thinking with mathematical logic, theory and relation and induction of mathematics, enumeration principles, permutations, combinations, generating functions, recurrence relation and graph theory and its application in several fields.																							
Study/exam achievements:	<p>Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table border="1"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="5">1</td> <td rowspan="5">CO 1- CO 4</td> <td>a. Individual assignment</td> <td rowspan="5">Written test</td> <td>15%</td> </tr> <tr> <td>b. Group assignment</td> <td>15%</td> </tr> <tr> <td>c. Quiz</td> <td>10%</td> </tr> <tr> <td>d. Mid Exam</td> <td>30%</td> </tr> <tr> <td>e. Final Exam</td> <td>30%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO 1- CO 4	a. Individual assignment	Written test	15%	b. Group assignment	15%	c. Quiz	10%	d. Mid Exam	30%	e. Final Exam	30%	Total				100%
No	CO	Assessment Object	Assessment Technique	Weight																				
1	CO 1- CO 4	a. Individual assignment	Written test	15%																				
		b. Group assignment		15%																				
		c. Quiz		10%																				
		d. Mid Exam		30%																				
		e. Final Exam		30%																				
Total				100%																				
Forms of media:	Board, LCD Projector, Laptop/Computer																							
Literature:	<ol style="list-style-type: none"> Rosen, Kenneth H. 1999. <i>Discrete Mathematics and Its Application</i>. CL. LIU. 1999. <i>Discrete Mathematics</i>. McGraw Hill. Jong Jek Siang, 2004. <i>Matematika Diskrit dan Aplikasinya pada Ilmu Komputer</i>. Andi Yogyakarta 																							

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1		✓										
CO2					✓							
CO3							✓					
CO4								✓				